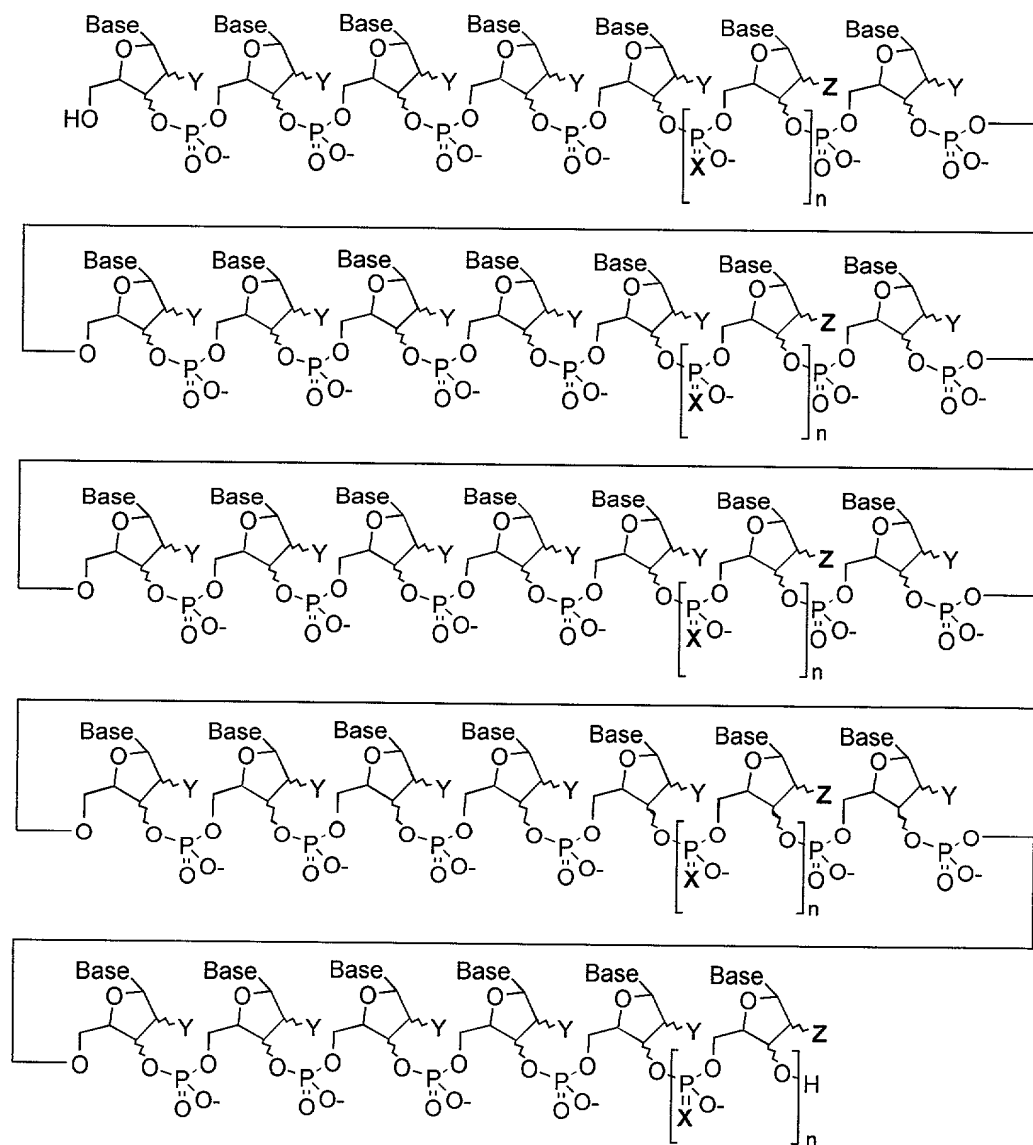
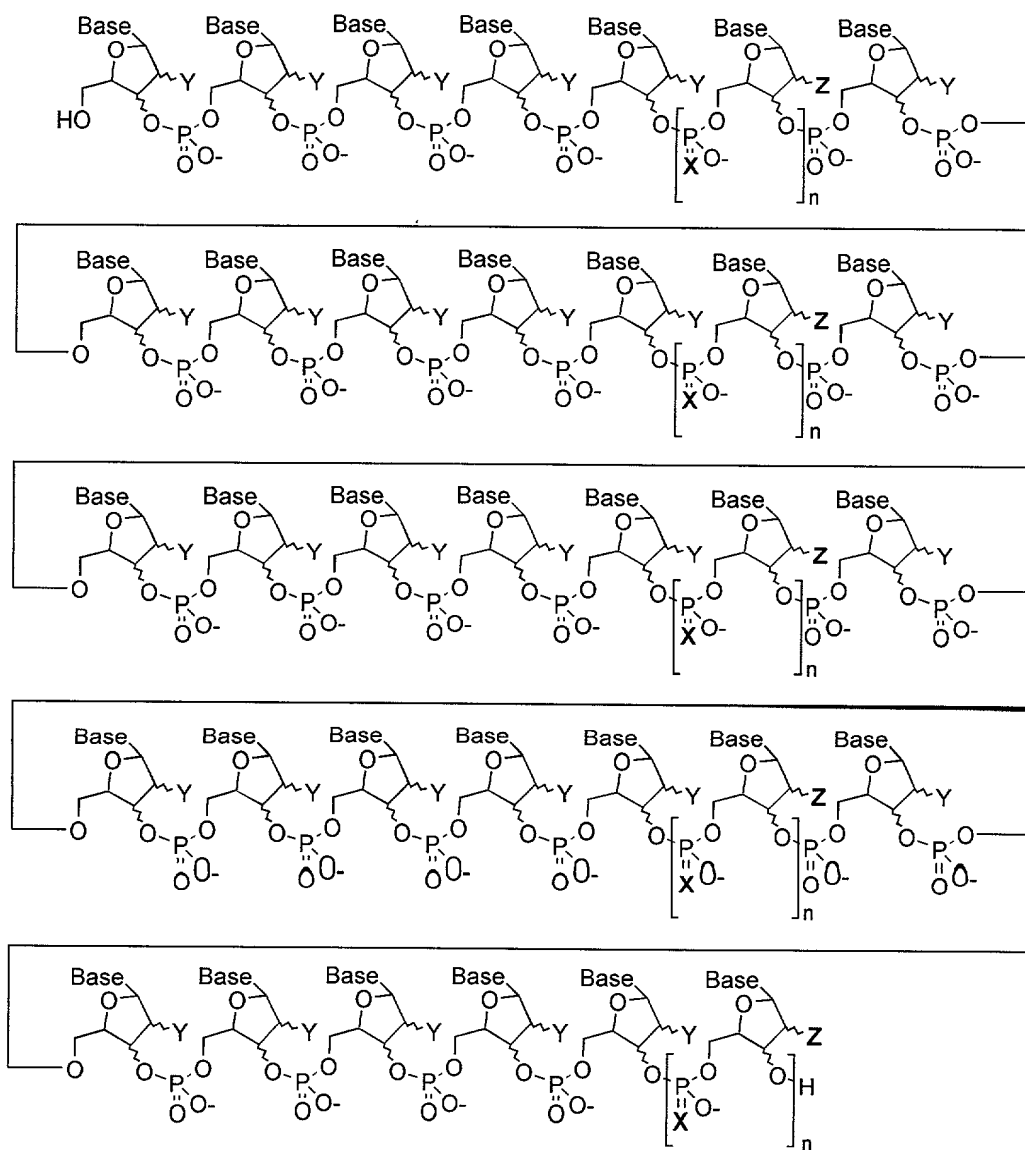


FIGURE 1



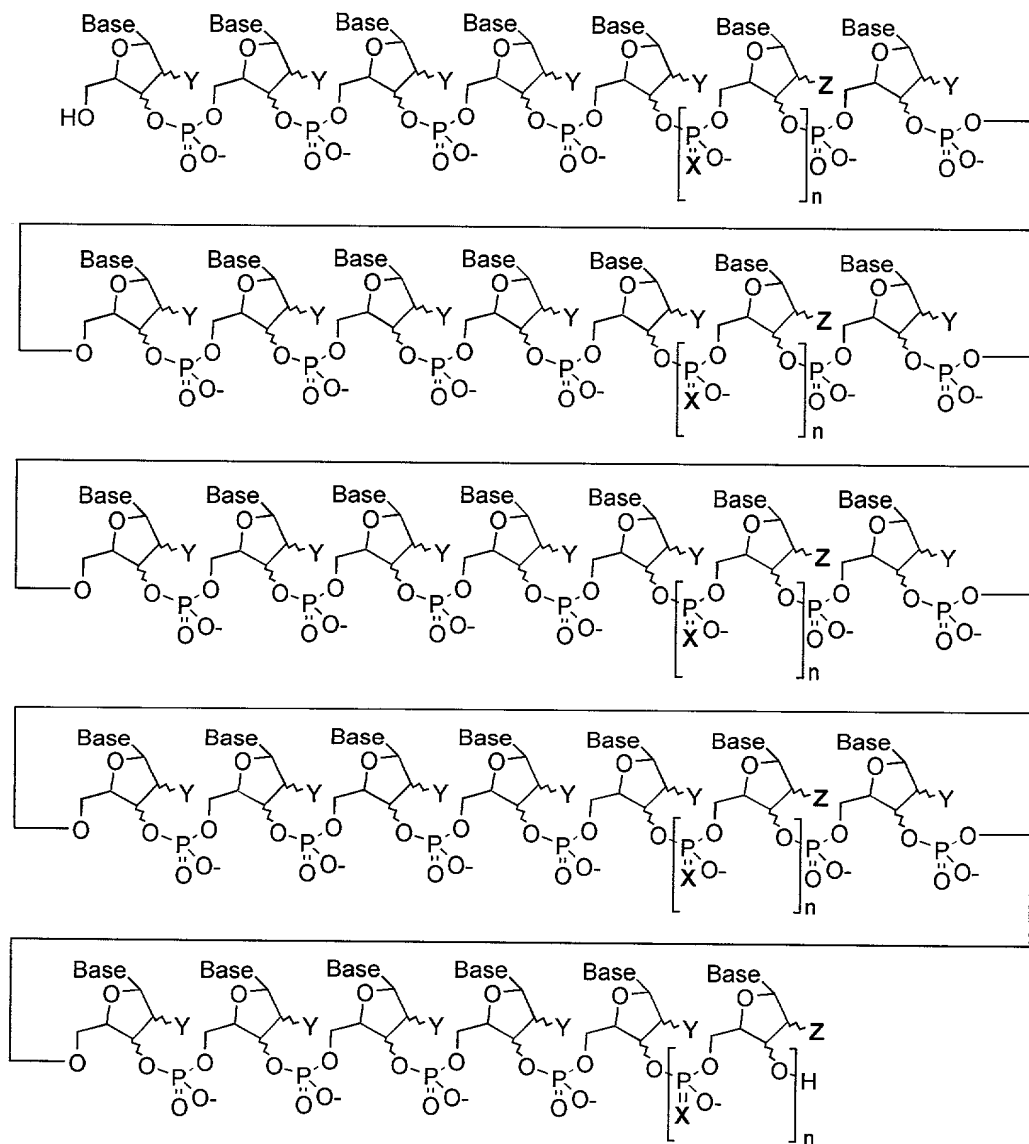
araCpO-2'OMeCpS 1 X = S Y =  $\beta$ -OH Z =  $\alpha$ -OMe Base = Cytosine n = 1,2,3,4

FIGURE 2



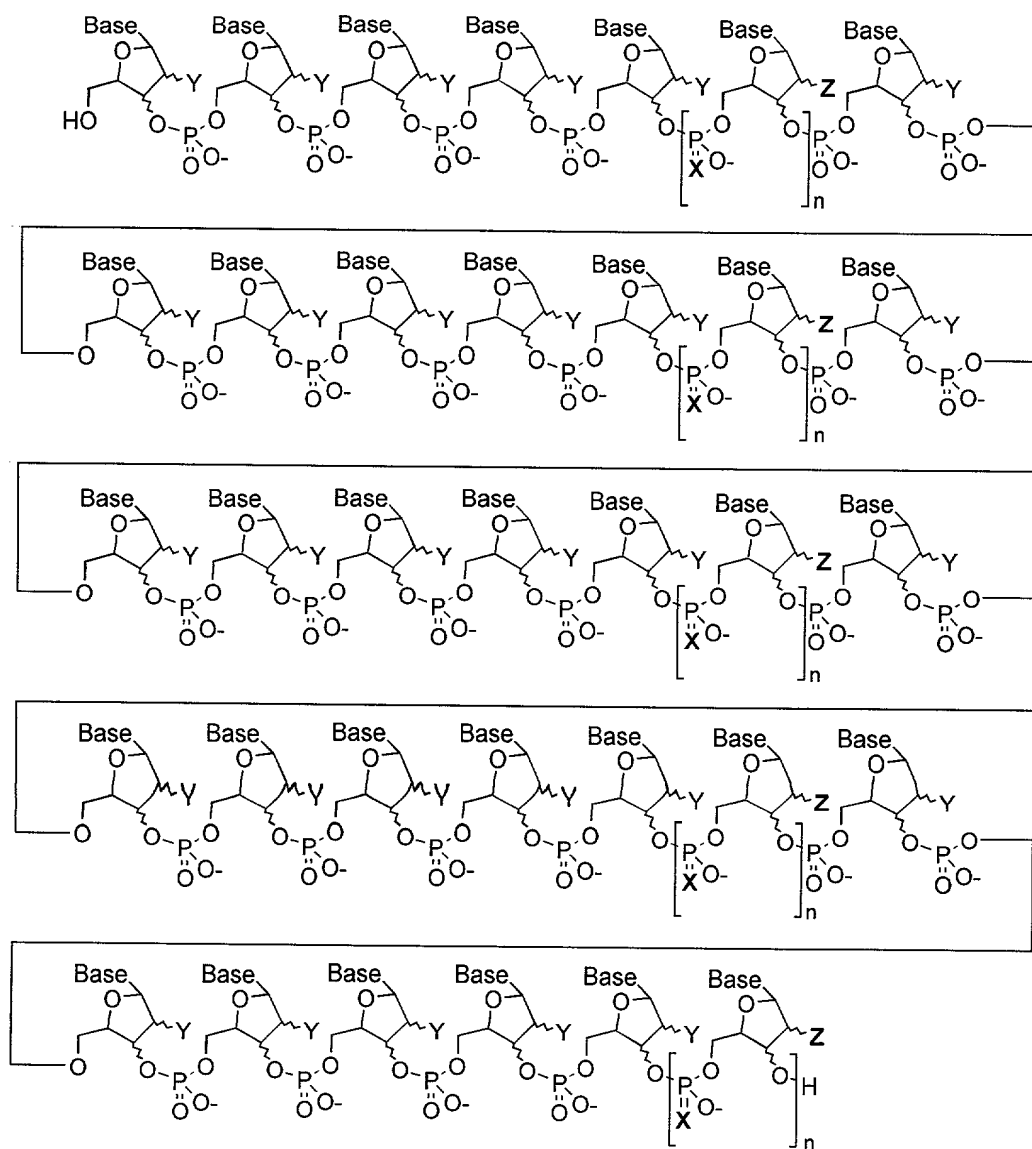
araCpO-2'OMeCpO 2 X = O Y =  $\beta$ -OH Z =  $\alpha$ -OMe Base = Cytosine n = 1,2,3,4

FIGURE 3



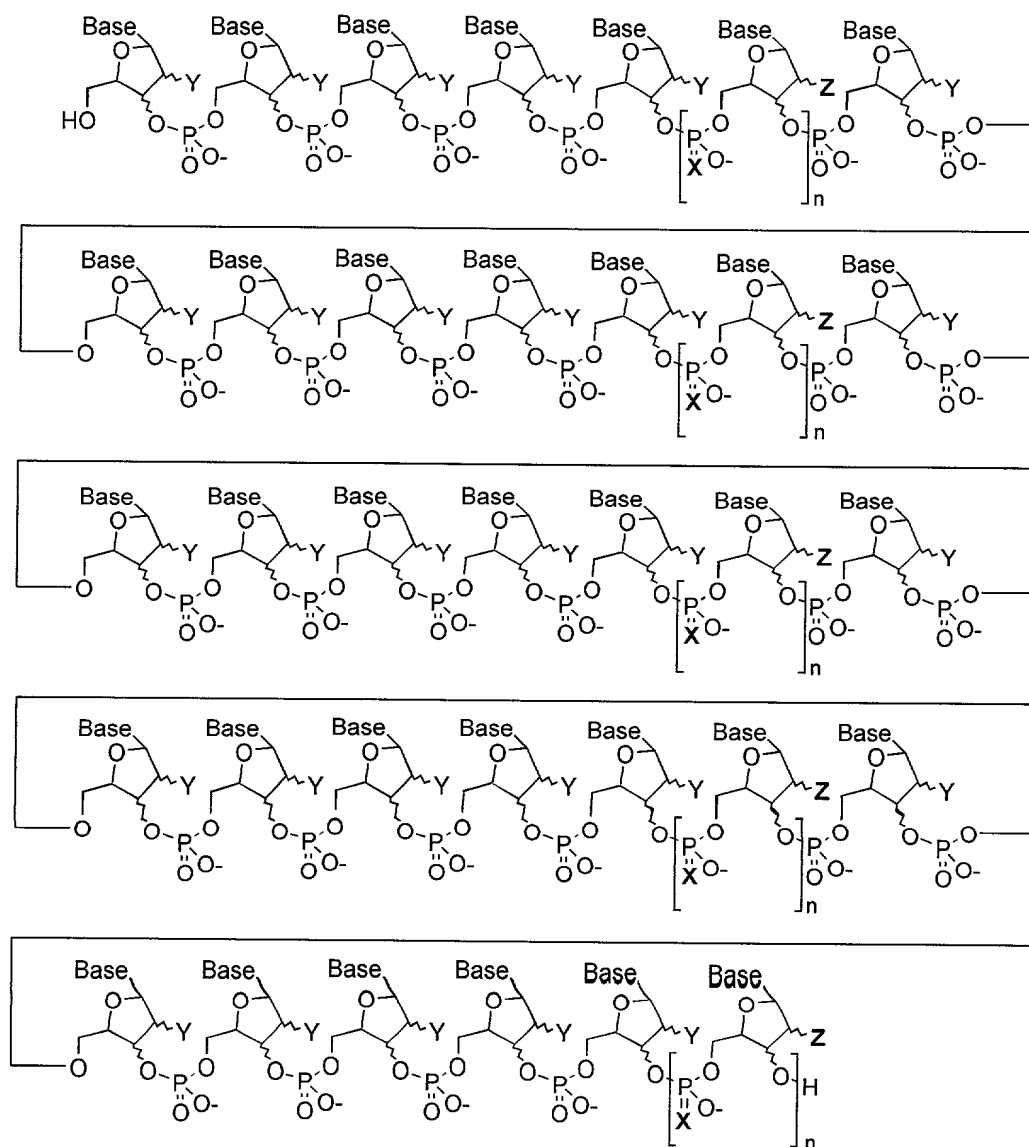
araCpO-2'Ome araCpO 3 X = O Y =  $\beta$ -OH Z =  $\beta$ -OMe Base = Cytosine n = 1,2,3,4

FIGURE 4



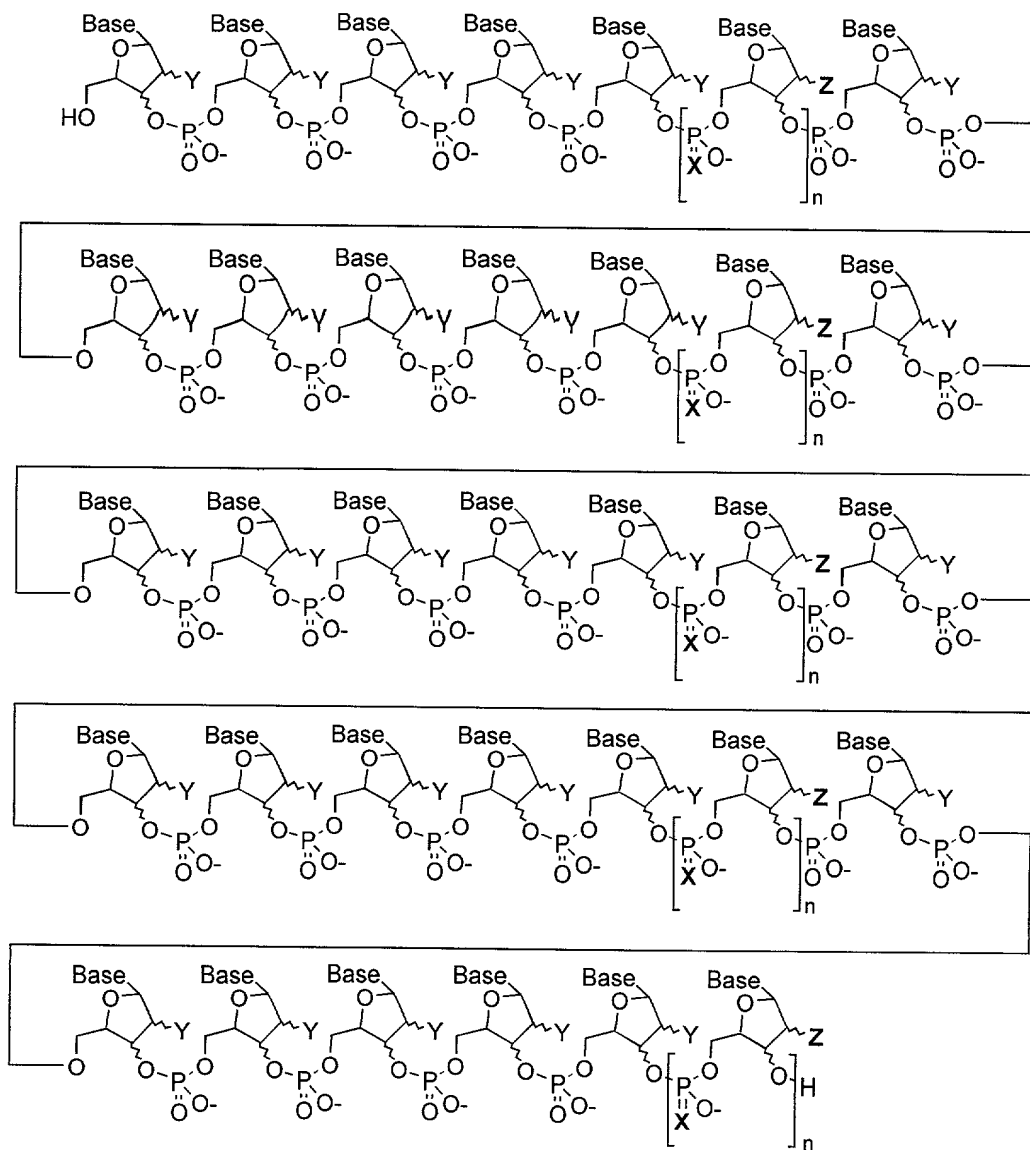
2CldApO-2CldAps 4 X = S Y = H Z = H Base = 2-Cl-Adenine n = 1,2,3,4

FIGURE 5



2FaraApO-2FaraApS 5 X = S Y =  $\beta$ -OH Z =  $\beta$ -OH Base = 2-F-Adenine n = 1,2,3,4

FIGURE 6



5FdUpO-5FdUpS

6

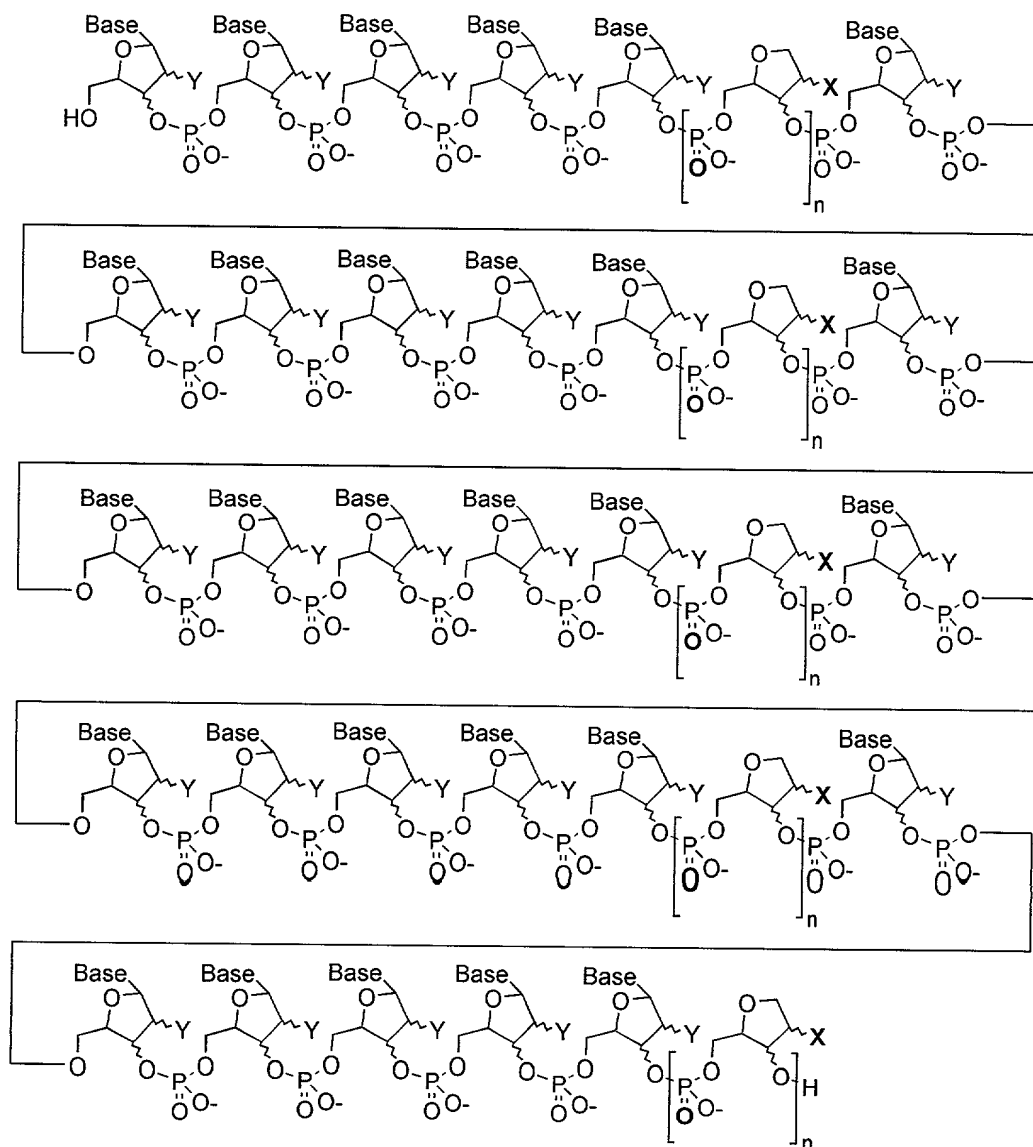
X = S Y = H

Z = H

Base = 5-Fluorouracil

n = 1,2,3,4

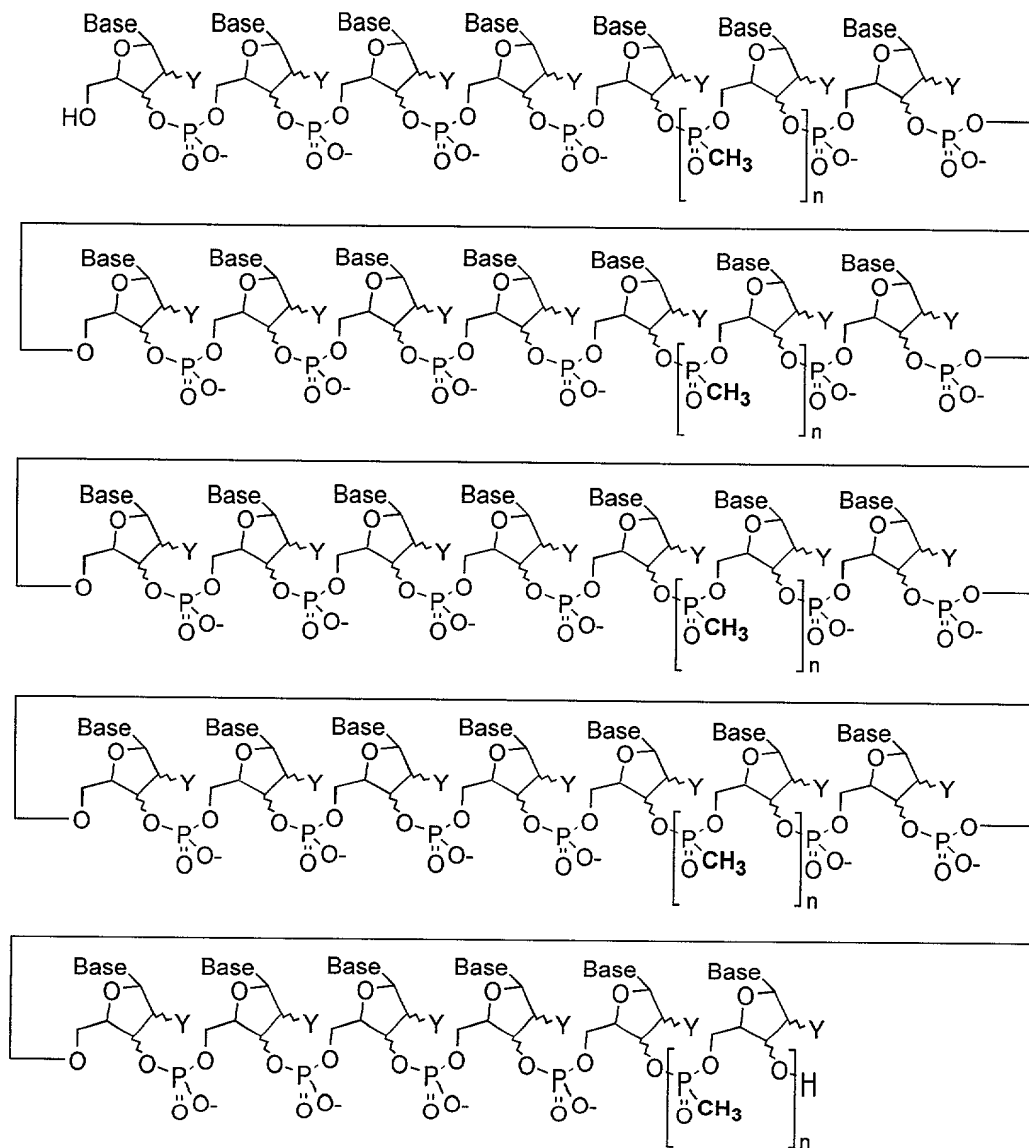
FIGURE 7



- Abasic**
- |    |                  |                 |                            |             |
|----|------------------|-----------------|----------------------------|-------------|
| 7  | X = $\alpha$ -OR | Y = H           | Base = 5-Fluorouracil etc. | n = 1,2,3,4 |
| 8  | X = $\alpha$ -OR | Y = $\beta$ -OH | Base = Cytosine            | n = 1,2,3,4 |
| 9  | X = $\alpha$ -OR | Y = $\beta$ -OH | Base = 2-F-Adenine         | n = 1,2,3,4 |
| 10 | X = $\alpha$ -OR | Y = H           | Base = 2-Cl-Adenine        | n = 1,2,3,4 |

R = Me, Et, iPr, allyl, alkyls (C<sub>2-35</sub>) containing one or more O, N, S atom, methoxyethyl, dimethylaminoethyl,

FIGURE 8



**Methylphosphonate**

- |    |          |                            |             |
|----|----------|----------------------------|-------------|
| 11 | Y = H    | Base = 5-Fluorouracil etc. | n = 1,2,3,4 |
| 12 | Y = β-OH | Base = Cytosine            | n = 1,2,3,4 |
| 13 | Y = β-OH | Base = 2-F-Adenine         | n = 1,2,3,4 |
| 14 | Y = H    | Base = 2-Cl-Adenine        | n = 1,2,3,4 |



FIGURE 9

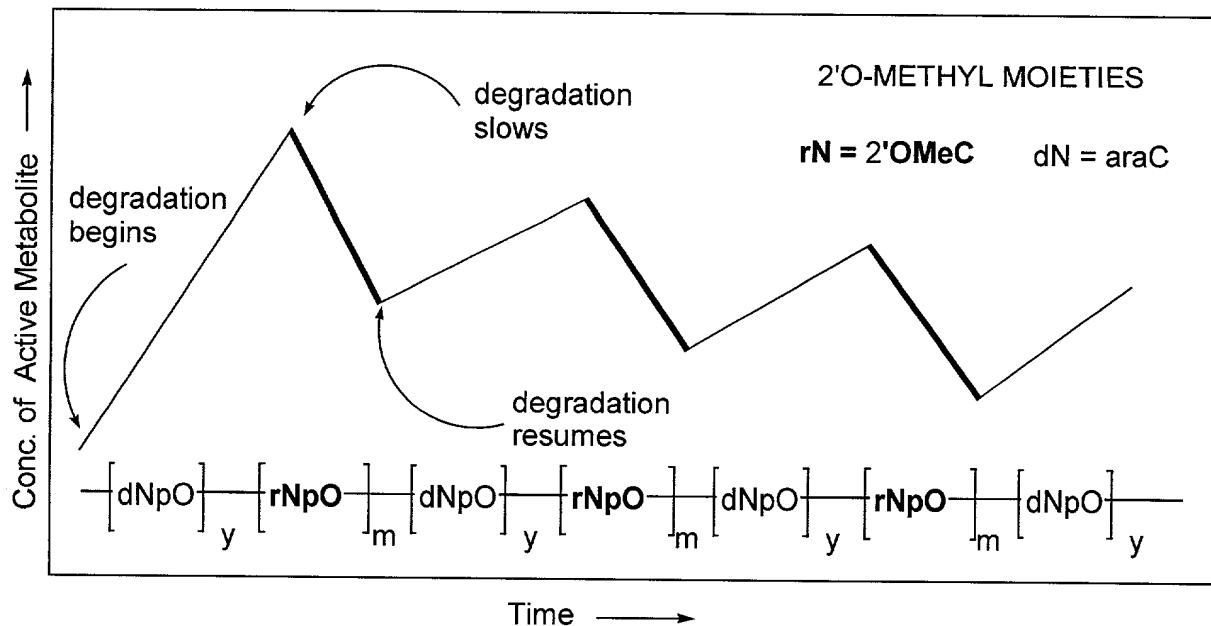


FIGURE 10

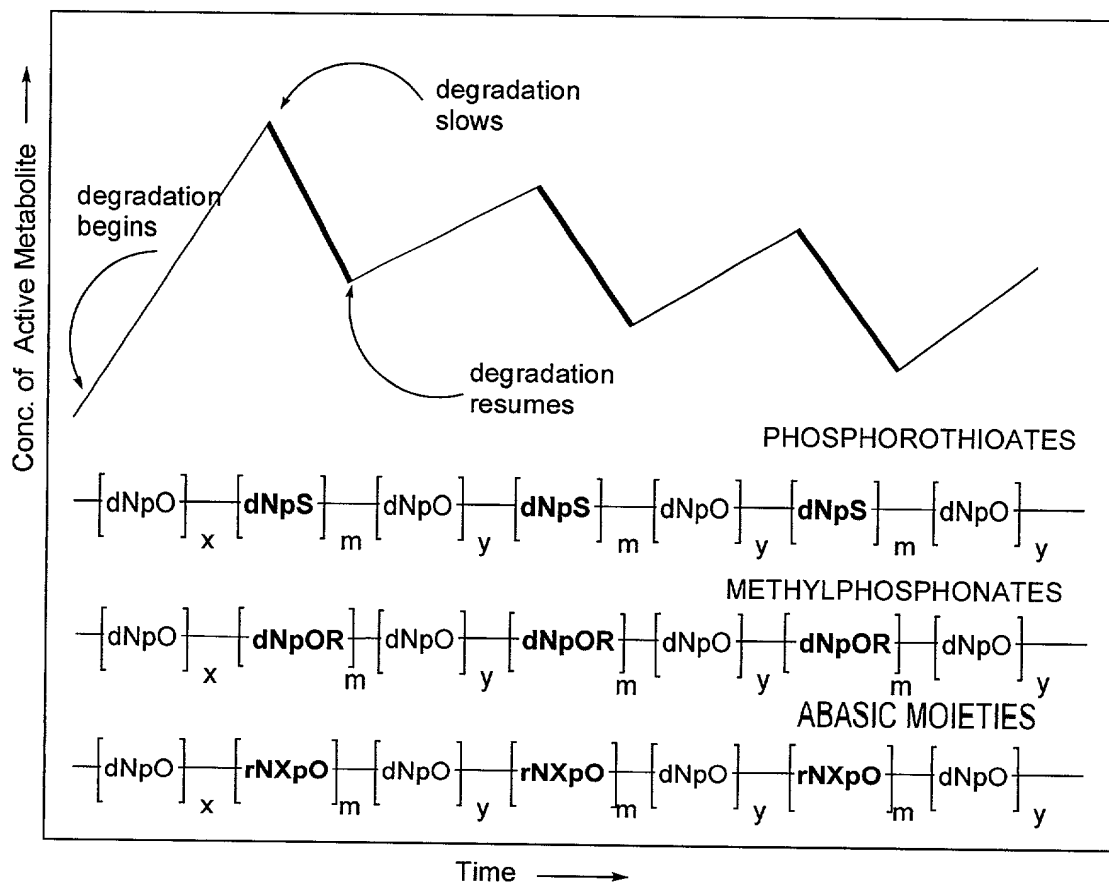
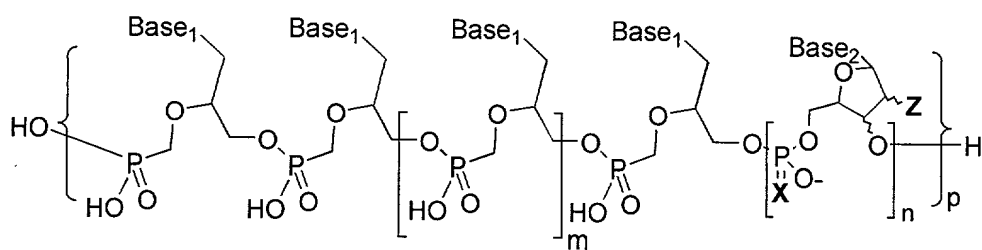


FIGURE 11



X=O,S    Z=OR    m, n, p = 1-10

Base<sub>1</sub> = cytosine, adenine, 2,6-diaminopurine

Base<sub>2</sub> = cytosine, adenine, 2,6-diaminopurine, guanine, uridine etc